

MONTHLY WEATHER REVIEW.

Acting Editor: Alfred J. Henry.

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INTRODUCTION.

The MONTHLY WEATHER REVIEW for September, 1897, is based on 2,864 reports from stations occupied by regular and voluntary observers, classified as follows: 144 from Weather Bureau stations; numerous special river stations; 33 from post surgeons, received through the Surgeon General, United States Army; 2,525 from voluntary observers; 96 received through the Southern Pacific Railway Company; 14 from Life-Saving stations, received through the Superintendent United States Life-Saving Service; 32 from Canadian stations; 20 from Mexican stations; 7 from Jamaica, W. I. International simultaneous observations are received from a few stations and used, together with trustworthy newspaper extracts and special reports.

Special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada; Mr. Curtis J. Lyons, Meteorologist to the Government Survey, Honolulu; Dr. Mariano Bárcena, Director of the Central Meteorological Observatory of Mexico; Mr. Maxwell Hall, Government Meteorologist,

Kingston, Jamaica; and Commander J. E. Craig, Hydrographer, United States Navy.

The REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. For the present month the duties of the Editor have been assumed by Mr. A. J. Henry, Chief of the Division of Records and Meteorological Data.

Attention is called to the fact that the clocks and self-registers at regular Weather Bureau stations are all set to seventy-fifth meridian or eastern standard time, which is exactly five hours behind Greenwich time, and, as far as practicable, only this standard of time is used in the text of the REVIEW, since all Weather Bureau observations are required to be taken and recorded by it. The standards used by the public in the United States and Canada and by the voluntary observers are believed to generally conform to the modern international system of standard meridians, one hour apart, beginning with Greenwich. Records of miscellaneous phenomena that are reported occasionally in other standards of time by voluntary observers or newspaper correspondents are generally corrected to agree with the eastern standard; otherwise, the local meridian is mentioned.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

September is one of the most pleasant months of the year. The heat of summer in northern latitudes begins to yield to the more invigorating air of autumn, the nights are cooler, the air is drier, and a sort of crispness prevails that is in marked contrast to the oppressive heat of midsummer. As compared with August, the rainfall is generally less, except on the south Atlantic and north Pacific coasts. The atmospheric pressure is greater, except on the Florida and north Pacific coasts, where the pressure decreases from August to September and the rainfall increases.

The winds of September do not blow uniformly from any one direction. On the New England Coast they are westerly or southwesterly; on the middle and south Atlantic coasts they are generally easterly or northeasterly; south of the thirty-fifth parallel of north latitude the general direction is easterly; in the middle and upper Mississippi valleys and in the Lake Region, westerly or southwesterly; on the Pacific Coast, westerly.

The most noteworthy feature of September, 1897, was the continuation of the drought referred to in the August REVIEW. While the drought was more severe in some localities than in others, as will be shown in the subsequent treatment of the

subject, yet drought conditions were general east of the Rocky Mountains, except in Florida and on the Georgia Coast.

Heavy rains fell in Arizona and southern New Mexico, and generally the rainfall of the Pacific Coast was normal or nearly so.

Pressure was higher than usual, especially in the Lake Region and the Ohio Valley, where averages of 30.19 inches for the month were recorded at several stations.

Temperature was unusually high in the upper Mississippi and Missouri valleys and generally above normal elsewhere, except in Florida and on the north Atlantic and the Pacific coasts.

No storm of wide extent occurred within the borders of the United States, although several West India hurricanes passed near Gulf and Atlantic Coast stations, the most noteworthy being those of the 13th and 21st. The first-named was severe on the Texas Coast, where 13 lives were lost, owing to high winds and tides, and property valued at \$150,000 was destroyed. The hurricane of the 21st skirted the south Atlantic Coast and disappeared south of New England on the 24th. Reports from incoming vessels indicate that it was quite severe off Hatteras on the 22d.

Extensive forest fires prevailed in Wisconsin, Michigan, Indiana, and Ohio; in some cases the smoke interfered with navigation on the Great Lakes.